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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/982,741	10/17/2001	Matthew T. Scholz	54402US028	7855

7590

10/31/2002

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EXAMINER

EGAN, BRIAN P

ART UNIT

PAPER NUMBER

1772

DATE MAILED: 10/31/2002

9

Please find below and/or attached an Office communication concerning this application or proceeding.

AS-9

**Office Action Summary**

Application No.

09/982,741

Applicant(s)

SCHOLZ ET AL.

Examiner

Brian P. Egan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 August 2002.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3, 5-20, 23 and 24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-20, 23 and 24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_                      6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Specification***

1. The abstract is objected to. Lines 7-9 read, "Also disclosed are friction control articles having a coefficient of friction when dry along at least a portion of the first surface is at least 0.6." The sentence is unclear. Examiner suggests replacing "is at least 0.6" with "of at least 0.6" to facilitate clarity. Proper clarification and/or correction are required.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Pursuant to the applicant's amendment (paper no. 7), the 35 U.S.C. 112, second paragraph rejections of claims 4-7 and 24 (paper no. 6) have been overcome. The Examiner, therefore, has cancelled the rejection.

### ***New Rejection***

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3, 5-8, 20, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable in view of Cejka et al. (#6,106,922).

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As noted in the previous office action (paper no. 6), Cejka et al. teach a stemmed web that can be used in virtually any application as any other stemmed web (Col. 6, lines 35-36) comprising a backing layer having a first surface and a second surface (Col. 1, lines 63-64), where projecting from the first surface of the backing layer is an array of stems (Col. 1, lines 64-67) – the stems comprising at least a portion of thermoplastic elastomeric material on the exterior surface of the stems (Col. 2, lines 3-5; see also Col. 3, lines 58-67). The stems are generally upstanding (See Figs. 1-8). The second surface of the backing layer may also comprise an array of stems protruding from the surface (See Fig. 8). The density of the stems is at least 15.5 stems/cm<sup>2</sup> (“densities ranging from 12-465 stems per square centimeter”; Col. 5, lines 54-55) wherein the aspect ratio of the stems on the first surface is at least 1.25 (stem height : stem diameter) (See Examples section; Col. 6, lines 46-48;  $15/1.25 = 12$ ). The elastomeric materials are selected from polypropylene, polyethylene, polystyrene, polycarbonate, polymethyl methacrylate, ethylene vinyl acetate copolymers, acrylate modified ethylene vinyl acetate polymers, ethylene acrylic acid copolymers, synthetic rubber, styrene block copolymers containing isoprene, butadiene, or ethylene (butylenes) blocks, metallocene-catalyzed polyolefins, polyurethanes or poly diorganosiloxanes, pressure-sensitive adhesives, and hot-melt adhesives (Col. 3, line 58 to Col. 4, line 5).

Although Cejka et al. do not explicitly state the claimed value of the coefficient of friction of the article, i.e., that the surface friction is 0.6 when dry and within 20% of this value when wet, Cejka et al. do state that the materials are chosen based on the desired characteristics of the end product (Col. 4, lines 10-11) and that the performance properties of the stemmed web can be modified based on the selection of materials (Col. 3, lines 33-36). Cejka et al. further

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state that materials may be chosen to provide either a high friction or a low friction surface (Col. 4, lines 11-16). Therefore, it would have been obvious through routine experimentation to one of ordinary skill in the art at the time applicants invention was made to have modified Cejka et al. by choosing any of the aforementioned materials based on the desired frictional characteristics of the end product. Furthermore, it would have been obvious to have modified Cejka et al. by choosing a material that exhibits a surface friction of 0.6 when dry and a surface friction when wet within 20% of this value, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

6. Claims 1-3, 5-7, 9-10, 19-20, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crawley et al. (#5,948,707).

As detailed in the previous office action (paper no. 6), Crawley et al. teach a medical drape (Col. 5, line 6) comprising a backing layer having a first surface and a second surface (Fig. 1, #12), where projecting from the first surface of the backing layer is an array of stems (Fig. 1, #15; Col. 4, lines 5-13), wherein at least a portion of the exterior surface of the stems comprises a thermoplastic elastomeric material (Col. 8, lines 15-17). The stems of the drape are generally upstanding and have a stainless steel static coefficient of friction of at least 0.6 (Col. 3, lines 49-57). Crawley et al. do not explicitly state that the stems have a coefficient of friction within 20% of 0.6 when wet although this limitation is inherently met given that the material limitations have been met by the reference – thereby inherently proving the material property of friction. The medical drape further comprises a second backing layer adjacent to the second surface of the first backing layer (Fig. 1, #16) where projecting from the second backing layer is a second array of

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stems, the second array of stems comprising an elastomeric material (Col. 8, lines 44-47). The density of the stems on the first surface of the backing layer is at least 15.5 stems/cm<sup>2</sup> (See Example 2; given a diameter of 0.53mm and the fact that the stems can be distributed to cover 5-95% of the surface area (Col. 7, lines 11-15), 15.5 stems/cm<sup>2</sup> would only cover 3.47% of the surface area (radius = 2.65mm,  $\pi \times 2.65^2 \times 15.5 \text{ stems} = 3.417\text{mm}^2 = 0.03417\text{cm}^2$ ,  $0.03417 \times 100 = 3.417\%$  of surface area covered with 15.5 stems) therefore, to cover at least 5% of the surface area, there will have to be more than 15.5 stems/cm<sup>2</sup>). The elastomeric material comprises silicon rubber (Col. 8, lines 17-19). Although Crawley et al. do not explicitly state that the medical drape comprises micro-channels between the stems along at least a portion of the exterior of the first surface of the backing layer, Crawley et al. state that the backing is water vapor permeable, thereby demonstrating the existence of micro-channels within the material (Col. 3, lines 64-65).

Crawley et al. fail to explicitly state that the medical drape stems comprise an aspect ratio of at least 1.25 – the aspect ratio being dependent on both the height and width of the stems. Crawley et al. does state, however, that the pattern of dots need not be substantially hemispherical in shape as described by Figs. 1 and 2, and that the pattern of dots may be of any desired shape including shapes such as generally described as squares, rectangles, polygons, etc. Shapes having a pointed or sharp tip, peak, or ridge may also be used for specific applications (Col. 7, lines 18-25). Therefore, it would have been obvious through routine experimentation to one of ordinary skill in the art at the time applicants invention was made to have modified the shape of the dots of Crawley et al., thereby modifying the aspect ratio of the dots such that it exceeds 1.25, depending on the desired application of the material. Furthermore, it would have

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been obvious to one of ordinary skill in the art at the time applicants invention was made to have modified the size of the dots in Crawley et al. such that the aspect ratio exceeds 1.25, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955).

7. Claims 11-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crawley et al. ('707) in view of Lind et al. (#4,204,532).

Crawley et al. teach a medical drape structure as detailed above. Crawley et al. fail to teach a reinforcing layer disposed between the first and second backing layers.

Lind et al., however, teach a surgical drape with a non-skid fenestration material layer (See Abstract). Lind et al. teach a fenestration material with a scrim reinforcement that can be either woven or non-woven. Lind et al. provide the fenestration structure for the purpose of improving instrument retaining and non-skid characteristics while eliminating the undesirable absorbency characteristics of prior art (Col. 1, lines 42-47) as well as to provide a material that can withstand sterilization techniques utilized for materials having medical applications (Col. 4, lines 51-54). It would have been obvious through routine experimentation to one of ordinary skill in the art at the time applicant's invention was made to have used a reinforcement fenestration structure between the base material layers of a medical drape structure for the purpose of improving the instrument retaining, non-skid, and absorbency characteristics of the drape as well as to provide a material that can withstand the sterilization techniques utilized for materials having medical applications as taught by Lind et al.

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Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have modified Crawley et al. to include a reinforcement fenestration structure between the first and second base layers as taught by Lind et al. in order to improve the instrument retaining, non-skid, and absorbency characteristics of the drape as well as to provide a material that can withstand the sterilization techniques utilized for materials having medical applications.

8. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Crawley et al. ('707) in view of Chen (#3,972,328).

Crawley et al. teach a medical drape as described above. Crawley et al. fail to teach the addition of an antioxidant to the elastomeric material of the drape.

Chen, however, teaches a surgical bandage that comprises an antioxidant (butylated hydroxytoluene or butylated hydroxyanisole) for the purpose of prolonging the shelf life of the bandage (Col. 2, lines 3-7 and lines 44-48). It would have been obvious through routine experimentation to one of ordinary skill in the art at the time applicant's invention was made to have used an antioxidant along with the elastomeric material of a medical drape for the purpose of prolonging the shelf life of the drape as taught by Chen.

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have modified Crawley et al. to include antioxidants in the elastomeric material of the medical drape as taught by Chen in order to prolong the shelf life of the drape.



***Response to Remarks***

9. Applicant's arguments filed August 13, 2002 have been fully considered but they are not persuasive. In relation to the Cejka et al. ('922) reference, the applicants primary contention is that Cejka et al. fail to teach the structural, component, and performance features of the rejected claims. The applicant looks to the examples provided by Cejka et al. to demonstrate this point. The Examiner, however, respectfully disagrees. First, with respect to the structural teachings of both the applicant's invention and the disclosure of Cejka et al., the applicant has provided no basis for incompatibility. The structural limitations are all met by the teachings of Cejka et al. as detailed above. Secondly, with respect to both the component and performance features of the rejected claims, the Examiner agrees with the applicants that the performance characteristics are not necessarily met via inherency outright. The Examiner directs the applicants to the new grounds of rejection as detailed above, wherein it is clearly pointed out that Cejka et al. not only provide at least five possible material compositions that are in juxtaposition with the applicants claimed invention (i.e., polymer blends containing styrene/hydrogenated butadiene block copolymers, polyacrylate-based thermoplastic elastomers, rubber, polyurethane, and styrene-isoprene copolymers (see Col. 3, lines 58-67)), but also provide that these materials can be chosen based on the desired end product and explicitly state that the materials can be chosen to demonstrate either a high or low frictional surface (Col. 4, lines 10-25). Therefore, the new grounds of rejection adequately address the material and performance limitations of the claimed invention. Also note that Figs. 2-6 and 8 of Cejka et al. all demonstrate the use of the aforementioned materials along the stem portions of the article – such use is not just briefly

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mentioned as the applicant contends by saying that the stem portions are covered in only examples 7-9 of Cejka et al.

In reference to the applicant's remarks in relation to the Crawley et al. reference, the new grounds of rejection detailed above have been made to address the applicants contention that Crawley et al. fail to teach the claimed aspect ratio limitation.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian P. Egan whose telephone number is 703-305-3144. The examiner can normally be reached on M-F, 8:30-5.


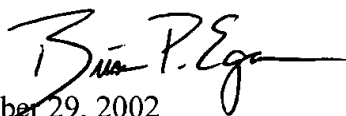
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Y. Pyon can be reached on 703-308-4251. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

BPE

October 29, 2002



HAROLD PYON  
SUPERVISORY PATENT EXAMINER  
1772

10/30/02